



[4910-13-P]

**DEPARTMENT OF TRANSPORTATION**

**Federal Aviation Administration**

**14 CFR Part 39**

**[Docket No. FAA-2018-0297; Product Identifier 2017-NM-181-AD; Amendment 39-19497; AD 2018-23-11]**

**RIN 2120-AA64**

**Airworthiness Directives; Airbus SAS Airplanes**

**AGENCY:** Federal Aviation Administration (FAA), Department of Transportation (DOT).

**ACTION:** Final rule.

**SUMMARY:** We are adopting a new airworthiness directive (AD) for certain Airbus SAS Model A319 series airplanes; Model A320-211, -212, -214, -231, -232, and -233 airplanes; and Model A321-111, -112, -131, -211, -212, -213, -231, and -232 airplanes. This AD was prompted by investigations that revealed that the cover seal of the brake dual distribution valve (BDDV) was damaged and did not ensure efficient sealing. This AD requires identifying the BDDV part number installed on the airplane, and modifying or replacing BDDVs having certain part numbers. We are issuing this AD to address the unsafe condition on these products.

**DATES:** This AD is effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

The Director of the Federal Register approved the incorporation by reference of certain publications listed in this AD as of [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

**ADDRESSES:** For service information identified in this final rule, contact Airbus SAS, Airworthiness Office – EIAS, Rond-Point Emile Dewoitine No: 2, 31700 Blagnac Cedex, France; telephone +33 5 61 93 36 96; fax +33 5 61 93 44 51; email [account.airworth-eas@airbus.com](mailto:account.airworth-eas@airbus.com); Internet <http://www.airbus.com>. You may view this service information at the FAA, Transport Standards Branch, 2200 South 216th St., Des Moines, WA. For information on the availability of this material at the FAA, call 206-231-3195. It is also available on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2018-0297.

#### **Examining the AD Docket**

You may examine the AD docket on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2018-0297; or in person at Docket Operations between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this final rule, the regulatory evaluation, any comments received, and other information. The address for Docket Operations (phone: 800-647-5527) is U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC 20590.

**FOR FURTHER INFORMATION CONTACT:** Sanjay Ralhan, Aerospace Engineer, International Section, Transport Standards Branch, FAA, 2200 South 216th St., Des Moines, WA 98198; telephone and fax 206-231-3223.

## **SUPPLEMENTARY INFORMATION:**

### **Discussion**

We issued a notice of proposed rulemaking (NPRM) to amend 14 CFR part 39 by adding an AD that would apply to certain Airbus SAS Model A319 series airplanes; Model A320-211, -212, -214, -231, -232, and -233 airplanes; and Model A321-111, -112, -131, -211, -212, -213, -231, and -232 airplanes. The NPRM published in the Federal Register on April 17, 2018 (83 FR 16799). The NPRM was prompted by investigations that revealed that the cover seal of the BDDV was damaged and did not ensure efficient sealing. The NPRM proposed to require identifying the BDDV part number installed on the airplane, and modifying or replacing BDDVs having certain part numbers.

We are issuing this AD to address water ingestion in the BDDV, freezing of the BDDV in flight, and consequent loss of braking system function after landing. These conditions could possibly result in damage to the airplane and injury to occupants.

The European Aviation Safety Agency (EASA), which is the Technical Agent for the Member States of the European Union, has issued EASA AD 2017-0119, dated July 11, 2017 (referred to after this as the Mandatory Continuing Airworthiness Information, or “the MCAI”), to correct an unsafe condition for certain Airbus SAS Model A319 series airplanes; Model A320-211, -212, -214, -231, -232, and -233 airplanes; and Model A321-111, -112, -131, -211, -212, -213, -231, and -232 airplanes. The MCAI states:

In 1998, an operator experienced a dual loss of braking systems. Investigation results revealed that the cover seal of the BDDV was damaged and did not ensure the sealing efficiency.

This condition, if not corrected, could lead to water ingestion in the BDDV, freezing of the BDDV in flight, and consequent loss of braking system function after landing, possibly resulting in damage to the aeroplane and injury to occupants.

To address this potential unsafe condition, Airbus issued Alert Operator Telex (AOT) 32-19 and Service Bulletin (SB) A320-32-1199, providing instructions for repetitive functional tests. In addition, Airbus developed mod 28301 and published SB A320-32-1203 to provide modification instructions.

Consequently, DGAC [Directorate General for Civil Aviation] France issued AD 2000-258-146 [which corresponds to FAA AD 2001-15-10, Amendment 39-12344 (66 FR 39413, July 31, 2001) (“AD 2001-15-10”)] to require repetitive functional tests as a temporary solution (valid for a period of 15 months) and modification of the BDDV with a new cover and installation of a draining tube with a cap, which was terminating action for the repetitive functional tests. For pre-mod 27833 and pre-SB A320-32-1200 aeroplanes, repetitive inspections per SB A320-32-1199 were required as interim action, prior to the terminating action modification per SB A320-32-1203.

After that [DGAC] AD was issued, following a new event, Airbus developed a new modification of the BDDV drain tube which leaves it open, ensuring continuous drainage of any ingested water, thereby preventing freezing of the brake system.

Consequently, EASA issued AD 2014-0251 (later revised), partially retaining the requirements of DGAC France AD 2000-258-146, which was superseded, and requiring an additional modification of the BDDV drain tube and re-identification of the BDDV.

Since EASA AD 2014-0251R1 [which corresponds to FAA AD 2016-06-13, Amendment 39-18444 (81 FR 17365, March 29, 2016) (“AD 2016-06-13”)] was issued, comments were received that indicated a need for correction and clarification. Consequently, this [EASA] AD retains the requirements of EASA AD 2014-0251R1, which is superseded, and expands the list of BDDV Part Numbers (P/N) which must be removed from service and are no

longer eligible for installation on an aeroplane [and includes replacing affected part numbers as an option]. This [EASA] AD also clarifies the intended requirements of EASA AD 2014-0251 and introduces editorial changes, not affecting the requirements.

You may examine the MCAI in the AD docket on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2018-0297.

## **Comments**

We gave the public the opportunity to participate in developing this final rule. The following presents the comments received on the NPRM and the FAA's response to each comment.

## **Supportive Comments**

Air Line Pilots Association, International stated its support for the NPRM. In addition, United Airlines (UAL) stated it concurs with the expansion of the affected BDDV part numbers as identified in Figure 1 to paragraphs (g) and (h) of the proposed AD.

## **Request to Withdraw the NPRM**

Delta Air lines (DAL) requested that we withdraw the NPRM. DAL stated that the NPRM does not address an unsafe condition and, therefore, it is unnecessary. DAL commented that airplanes included in paragraph (c) of the proposed AD are already required to comply with the actions required by AD 2001-15-10, depending on modification status. DAL also commented that the NPRM does not add any airplanes to the applicability of AD 2001-15-10 and 2016-06-13. DAL stated that tracking compliance with the redundant requirements of the proposed AD would place an undue burden on airlines.

DAL stated that paragraphs (j)(1)(i) and (j)(2)(i) of the proposed AD give credit for actions accomplished using previously issued service information. DAL commented that FAA Letter ANM-116-16-491, dated September 27, 2016, gives operators the

authority to accomplish paragraph (g) of AD 2016-06-13 as an alternative method of compliance (AMOC), and it is also a terminating action for the actions required by paragraphs (e) and (f) of AD 2001-15-10. DAL stated that the compliance times for AD 2001-15-10 and AD 2016-06-13 have passed, therefore, all airplanes must be in compliance.

We partially agree with the commenter's request. We agree that airplanes included in paragraph (c) of this AD are also required to comply with AD 2001-15-10 and AD 2016-06-13, and that this AD does not add any new Model airplanes related to those listed in AD 2001-15-10 and AD 2016-06-13. However, as stated in paragraph (i) of this AD, compliance with paragraph (g) of this AD terminates the requirements in paragraphs (e) and (f) of AD 2001-15-10 (which terminates all requirements of AD 2001-15-10 for Model A318, A319 and A320 series airplanes) and all requirements of AD 2016-06-13. For clarification, we have modified paragraph (i)(1) of this AD to state that compliance with paragraph (g) of this AD terminates all requirements of AD 2001-15-10 for Model A319, A320 and A321 series airplanes. We agree that operators will be required to track certain ADs with expired compliance times, but we are in process of rescinding some of those ADs through future rulemaking. We agree that AMOC letter ANM-116-16-491 dated September 27, 2016, will still be applicable to AD 2016-06-13.

We disagree with the commenter's request to withdraw this AD. We, along with EASA, have determined that water ingestion in the BDDV, freezing of the BDDV in flight, and consequent loss of braking system function after landing, could possibly result in damage to the airplane and injury to occupants, and therefore, does constitute an unsafe condition, and that additional mandatory actions in this AD are required to mitigate the risks associated with the unsafe condition. Further, even if the current U.S.-Registered fleet is in compliance with the requirements of this AD, the issuance of the rule is still necessary to ensure that any affected airplane imported and placed on the

U.S. Register in the future would be required to be in compliance as well. This AD expands the list of BDDV part numbers, which must be removed from service and are no longer eligible for installation on an airplane. Therefore, all U.S.-Registered airplanes might not be in compliance with the actions of this AD even when in full compliance with AD 2001-15-10 and AD 2016-06-13. However, if DAL concludes that it is in compliance with the requirements of this AD, then it may utilize the provision in paragraph (f) to demonstrate compliance. We have not changed this AD in this regard.

#### **Request to Correct Certain Wording**

DAL observed that the word “actions” was inadvertently omitted from the first sentence in paragraph (g)(2) of the proposed AD after the word “corrective.” We agree and have added the missing word accordingly.

#### **Request to Revise Certain Wording for Clarification**

UAL requested that we revise the wording in certain paragraphs of the proposed AD for clarification. UAL suggested that paragraph (g)(3) of the proposed AD be reworded because the way it is currently written, it could be interpreted as “a part number specified as new P/N in figure 2 to paragraphs (g)(3) and (h)(2)” cannot be installed.

UAL also suggested that paragraph (h) of the proposed AD be revised to eliminate paragraphs (h)(1) and (h)(2) and be reworded to simply prohibit the installation of affected BDDVs as specified in figure 1 to paragraphs (g) and (h) of the proposed AD.

We partially agree to the commenter’s requests. We agree to clarify paragraph (g)(3) of this AD. We have revised paragraph (g)(3) of this AD to clarify that operators should replace the old part number with a new part number as specified in figure 2 to paragraphs (g)(3) and (h)(2) of this AD.

However, we disagree to simply prohibit installation of discrepant parts that are specified in figure 1 to paragraphs (g) and (h) of this AD from the effective date of this AD. Paragraph (h) provides operators flexibility by providing the full compliance time as

specified in paragraph (g) to modify or replace discrepant parts, unless the discrepant part is either currently installed as of the effective date of this AD and is subsequently modified or replaced (after the effective date of this AD) as stated in paragraph (h)(1) of this AD, or has already been modified or replaced as of the effective date of this AD as stated in paragraph (h)(2) of this AD. Operators have the discretion to prohibit operation with a discrepant part in figure 1 to paragraphs (g) and (h) of this AD from the effective date of this AD. We have not changed the AD in this regard.

### **Request to Clarify the Compliance Requirements**

JetBlue requested that we clarify the compliance requirements in paragraphs (g)(2), (g)(3), and (h)(2) of the proposed AD because of contradictory requirements. The commenter did not clearly identify which requirements needed clarification.

We do not agree to revise paragraph (g)(2) of this AD. This AD and the Accomplishment Instructions of Airbus Service Bulletin A320-32-1415, Revision 02, dated December 10, 2015, specify that, if corrosion is found in a non-permitted area, replace the BDDV before further flight. We have not changed this AD in this regard.

As we stated previously, we have revised paragraph (g)(3) of this AD to clarify that operators should replace the old part number with a new part number as specified in figure 2 to paragraphs (g)(3) and (h)(2) of this AD.

We agree to clarify the compliance requirements of paragraph (h)(2) of this AD. As stated in the previous comment response, paragraph (h) is intended to provide operators flexibility by providing the full compliance time as specified in paragraph (g) to modify or replace discrepant parts. However, paragraph (h)(2) of this AD specifically prohibits installation of a discrepant part as of the effective date of this AD if the discrepant part has already been modified or replaced as of the effective date of this AD. Paragraph (h)(1) of this AD prohibits installation of a discrepant part as of the effective date of this AD, if a discrepant part is currently installed as of the effective of this AD,



but is modified or replaced after the effective date of this AD. Operators have the discretion to prohibit operation with a discrepant part in figure 1 to paragraphs (g) and (h) of this AD from the effective date of this AD. We have not changed the AD in this regard.

## **Conclusion**

We reviewed the relevant data, considered the comments received, and determined that air safety and the public interest require adopting this final rule with the changes described previously and minor editorial changes. We have determined that these minor changes:

- Are consistent with the intent that was proposed in the NPRM for addressing the unsafe condition; and
- Do not add any additional burden upon the public than was already proposed in the NPRM.

We also determined that these changes will not increase the economic burden on any operator or increase the scope of this final rule.

## **Related Service Information under 1 CFR part 51**

Airbus SAS has issued Service Bulletin A320-32-1203, Revision 02, dated February 9, 2001. This service information describes procedures for identifying the BDDV part number installed on the airplane, and modifying or replacing BDDVs having certain part numbers.

Airbus SAS has also issued Service Bulletin A320-32-1415, Revision 02, dated December 10, 2015. This service information describes procedures for modifying and re-identifying the BDDV. The modification includes modifying the drain hose of the BDDV, and doing all related investigative and corrective actions if applicable. The

related investigative actions include an inspection for corrosion. Corrective actions include replacing the BDDV.

This service information is reasonably available because the interested parties have access to it through their normal course of business or by the means identified in the ADDRESSES section.

### **Costs of Compliance**

We estimate that this AD affects 1,136 airplanes of U.S. registry.

We estimate the following costs to comply with this AD:

<b>Estimated costs</b>				
<b>Action</b>	<b>Labor cost</b>	<b>Parts cost</b>	<b>Cost per product</b>	<b>Cost on U.S. operators</b>
Identification and modification or replacement	Up to 6 work-hours X \$85 per hour = \$510	Up to \$395	Up to \$905	Up to \$1,028,080

We have received no definitive data that would enable us to provide cost estimates for the on-condition actions specified in this AD.

### **Authority for this Rulemaking**

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. Subtitle VII: Aviation Programs, describes in more detail the scope of the Agency's authority.

We are issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701: "General requirements." Under that section, Congress

charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

This AD is issued in accordance with authority delegated by the Executive Director, Aircraft Certification Service, as authorized by FAA Order 8000.51C. In accordance with that order, issuance of ADs is normally a function of the Compliance and Airworthiness Division, but during this transition period, the Executive Director has delegated the authority to issue ADs applicable to transport category airplanes and associated appliances to the Director of the System Oversight Division.

### **Regulatory Findings**

This AD will not have federalism implications under Executive Order 13132. This AD will not have a substantial direct effect on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify that this AD:

- (1) Is not a “significant regulatory action” under Executive Order 12866,
- (2) Is not a “significant rule” under the DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979),
- (3) Will not affect intrastate aviation in Alaska, and
- (4) Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

## **List of Subjects in 14 CFR Part 39**

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

### **Adoption of the Amendment**

Accordingly, under the authority delegated to me by the Administrator, the FAA amends 14 CFR part 39 as follows:

### **PART 39 - AIRWORTHINESS DIRECTIVES**

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

#### **§ 39.13 [Amended]**

2. The FAA amends § 39.13 by adding the following new airworthiness directive (AD):

**2018-23-11 Airbus SAS:** Amendment 39-19497; Docket No. FAA-2018-0297; Product Identifier 2017-NM-181-AD.

#### **(a) Effective Date**

This AD is effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

#### **(b) Affected ADs**

This AD affects AD 2001-15-10, Amendment 39-12344 (66 FR 39413, July 31, 2001) (“AD 2001-15-10”), and AD 2016-06-13, Amendment 39-18444 (81 FR 17365, March 29, 2016) (“AD 2016-06-13”).

#### **(c) Applicability**

This AD applies to the airplanes identified in paragraphs (c)(1) through (c)(3) of this AD, certificated in any category, all manufacturer serial numbers, except those on

which Airbus Modification 26925 has been embodied in production, which introduces a modified alternate braking system that removes the brake dual distribution valve (BDDV).

(1) Airbus SAS Model A319-111, -112, -113, -114, -115, -131, -132, and -133 airplanes.

(2) Airbus SAS Model A320-211, -212, -214, -231, -232, and -233 airplanes.

(3) Airbus SAS Model A321-111, -112, -131, -211, -212, -213, -231, and -232 airplanes.

**(d) Subject**

Air Transport Association (ATA) of America Code 32, Landing gear.

**(e) Reason**

This AD was prompted by investigations that revealed that the cover seal of the brake dual distribution valve (BDDV) was damaged and did not ensure efficient sealing. We are issuing this AD to prevent water ingestion in the BDDV, freezing of the BDDV in flight, and consequent loss of braking system function after landing. These conditions could possibly result in damage to the airplane and injury to occupants.

**(f) Compliance**

Comply with this AD within the compliance times specified, unless already done.

**(g) Identification and Modification or Replacement**

Within 3 months after the effective date of this AD, identify the BDDV part number installed on the airplane. For each affected BDDV part number specified in figure 1 to paragraphs (g) and (h) of this AD, within 3 months after the effective date of this AD, do the actions in paragraph (g)(1), (g)(2), or (g)(3) of this AD. A review of

airplane maintenance records is acceptable to identify the BDDV part number if the part number of the BDDV can be conclusively determined from that review.

**Figure 1 to paragraphs (g) and (h) of this AD – Affected BDDV part number**

P/N				
A25434005-1	A25434005-100	A25434005-101	A25434006-1	A25434006-100
A25434005-2	A25434005-200	A25434005-201	A25434006-2	A25434006-101
A25434005-3	A25434005-300	A25434005-301	A25434006-3	A25434006-200
A25434005-4	A25434005-400	A25434005-401		

(1) Modify and re-identify the affected BDDV, in accordance with the Accomplishment Instructions of Airbus Service Bulletin A320-32-1203, Revision 02, dated February 9, 2001.

(2) Modify and re-identify the affected BDDV, and do all applicable related investigative and corrective actions, in accordance with the Accomplishment Instructions of Airbus Service Bulletin A320-32-1415, Revision 02, dated December 10, 2015. Do all applicable related investigative and corrective actions before further flight.

(3) Replace the affected BDDV with a BDDV having a part number not specified in figure 1 to paragraphs (g) and (h) of this AD, or replace the old part number with a new part number as specified in figure 2 to paragraphs (g)(3) and (h)(2) of this AD. Do the replacement using a method approved by the Manager, International Section, Transport Standards Branch, FAA; or the European Aviation Safety Agency (EASA); or Airbus SAS's EASA Design Organization Approval (DOA). If approved by the DOA, the approval must include the DOA-authorized signature.

**Figure 2 to paragraphs (g)(3) and (h)(2) of this AD – BDDV part number re-identification**

<b>Old P/N</b>	<b>New P/N</b>
A25434006-3	A25434006-3000
A25434005-101	A25434005-1010
A25434005-201	A25434005-2010
A25434005-301	A25434005-3010
A25434005-401	A25434005-4010
A25434006-101	A25434006-1010

**(h) Parts Installation Prohibition**

As of the applicable time specified in paragraph (h)(1) or (h)(2) of this AD, no person may install a BDDV having a part number specified in figure 1 to paragraphs (g) and (h) of this AD, on any airplane.

(1) For any airplane that, on the effective date of this AD, has a BDDV installed with a part number specified in figure 1 to paragraphs (g) and (h) of this AD: After modification or replacement of the BDDV, as required by paragraph (g) of this AD.

(2) For any airplane that, on the effective date of this AD, has a BDDV installed or replaced with a part number specified as ‘new P/N’ in figure 2 to paragraphs (g)(3) and (h)(2) of this AD, or has a BDDV installed or replaced with a part number not specified in figure 1 to paragraphs (g) and (h) of this AD: As of the effective date of this AD.

**(i) Terminating Action for Other ADs**

(1) Doing the actions in paragraph (g) of this AD terminates the requirements in paragraphs (e) and (f) of AD 2001-15-10 for Model A319, A320 and A321 series airplanes.

(2) Doing the actions in paragraph (g) of this AD terminates all of the requirements of AD 2016-06-13.

**(j) Credit for Previous Actions**

(1) This paragraph provides credit for actions required by paragraph (g)(1) of this AD, if those actions were performed before the effective date of this AD using the service information in paragraphs (j)(1)(i) or (j)(1)(ii) of this AD.

(i) Airbus Service Bulletin A320-32-1203, dated June 4, 1999, which was incorporated by reference in AD 2001-15-10.

(ii) Airbus Service Bulletin A320-32-1203, Revision 01, dated October 12, 2000.

(2) This paragraph provides credit for actions required by paragraph (g)(2) of this AD, if those actions were performed before the effective date of this AD using the service information in paragraphs (j)(2)(i) or (j)(2)(ii) of this AD.

(i) Airbus Service Bulletin A320-32-1415, dated September 2, 2014, which was incorporated by reference in AD 2016-06-13.

(ii) Airbus Service Bulletin A320-32-1415, Revision 01, dated April 23, 2015.

**(k) Other FAA AD Provisions**

The following provisions also apply to this AD:

*(1) Alternative Methods of Compliance (AMOCs):* The Manager, International Section, Transport Standards Branch, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the International Section, send it to the attention of the person identified in paragraph (l)(2) of this AD. Information may be emailed to: 9-ANM-116-AMOC-REQUESTS@faa.gov. Before using any approved AMOC, notify your appropriate principal inspector, or lacking a



principal inspector, the manager of the local flight standards district office/certificate holding district office.

(2) *Contacting the Manufacturer*: For any requirement in this AD to obtain corrective actions from a manufacturer, the action must be accomplished using a method approved by the Manager, International Section, Transport Standards Branch, FAA; or the EASA; or Airbus SAS's EASA DOA. If approved by the DOA, the approval must include the DOA-authorized signature.

(3) *Required for Compliance (RC)*: If any service information contains procedures or tests that are identified as RC, those procedures and tests must be done to comply with this AD; any procedures or tests that are not identified as RC are recommended. Those procedures and tests that are not identified as RC may be deviated from using accepted methods in accordance with the operator's maintenance or inspection program without obtaining approval of an AMOC, provided the procedures and tests identified as RC can be done and the airplane can be put back in an airworthy condition. Any substitutions or changes to procedures or tests identified as RC require approval of an AMOC.

#### **(I) Related Information**

(1) Refer to Mandatory Continuing Airworthiness Information (MCAI) EASA AD 2017-0119, dated July 11, 2017, for related information. This MCAI may be found in the AD docket on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2018-0297.

(2) For more information about this AD, contact Sanjay Ralhan, Aerospace Engineer, International Section, Transport Standards Branch, FAA, 2200 South 216th St., Des Moines, WA 98198; telephone and fax 206-231-3223.

(3) Service information identified in this AD that is not incorporated by reference is available at the addresses specified in paragraphs (m)(3) and (m)(4) of this AD.

**(m) Material Incorporated by Reference**

(1) The Director of the Federal Register approved the incorporation by reference (IBR) of the service information listed in this paragraph under 5 U.S.C. 552(a) and 1 CFR part 51.

(2) You must use this service information as applicable to do the actions required by this AD, unless this AD specifies otherwise.

(i) Airbus Service Bulletin A320-32-1203, Revision 02, dated February 9, 2001.

(ii) Airbus Service Bulletin A320-32-1415, Revision 02, dated December 10, 2015.

(3) For service information identified in this AD, contact Airbus SAS, Airworthiness Office – EIAS, Rond-Point Emile Dewoitine No: 2, 31700 Blagnac Cedex, France; telephone +33 5 61 93 36 96; fax +33 5 61 93 44 51; email [account.airworth-eas@airbus.com](mailto:account.airworth-eas@airbus.com); Internet <http://www.airbus.com>.

(4) You may view this service information at the FAA, Transport Standards Branch, 2200 South 216th St., Des Moines, WA. For information on the availability of this material at the FAA, call 206-231-3195.

(5) You may view this service information that is incorporated by reference at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202-741-6030, or go to:  
<http://www.archives.gov/federal-register/cfr/ibr-locations.html>.

Issued in Des Moines, Washington, on November 5, 2018.

Christopher Spangenberg,  
Acting Director,  
System Oversight Division,  
Aircraft Certification Service.

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